

## WHAT IS CLAIMED IS:

1                   1.       A method for determining whether a subject has or is predisposed for a  
2 mood disorder, the method comprising the steps of:

3                   (i) obtaining a biological sample from a subject;

4                   (ii) contacting the sample with a reagent that selectively associates with a  
5 polynucleotide or polypeptide encoded by a nucleic acid that hybridizes under stringent  
6 conditions to a nucleotide sequence of Table 2, 3, or 4; and

7                   (iii) detecting the level of reagent that selectively associates with the sample,  
8 thereby determining whether the subject has or is predisposed for a mood disorder.

1                   2.       The method of claim 1, wherein the reagent is an antibody.

1                   3.       The method of claim 1, wherein the reagent is a nucleic acid.

1                   4.       The method of claim 1, wherein the reagent associates with a  
2 polynucleotide.

1                   5.       The method of claim 1, wherein the reagent associates with a  
2 polypeptide.

1                   6.       The method of claim 1, wherein the level of reagent that associates  
2 with the sample is different from a level associated with humans without a mood disorder.

1                   7.       The method of claim 1, wherein the biological sample is obtained from  
2 amniotic fluid.

1                   8.       The method of claim 1, wherein the mood disorder is selected from the  
2 group consisting of bipolar disorder I, bipolar disorder II, and major depression disorder.

1                   9.       The method of claim 6, wherein the level of reagent that associates  
2 with the sample is higher than a level associated with humans without a mood disorder.

1                   10.      The method of claim 6, wherein the level of reagent that associates  
2 with the sample is lower than a level associated with humans without a mood disorder.

1                   11.      A method of identifying a compound for treatment or prevention of a  
2 mood disorder, the method comprising the steps of:

3 (i) contacting the compound with a polypeptide, the polypeptide encoded by a  
4 polynucleotide that hybridizes under stringent conditions to a nucleic acid sequence  
5 comprising a nucleotide sequence of Table 2, 3, or 4; and

6 (ii) determining the functional effect of the compound upon the polypeptide,  
7 thereby identifying a compound for treatment or prevention of a mood disorder.

1 12. The method of claim 11, wherein the contacting step is performed *in*  
2 *vitro*.

1 13. The method of claim 11, wherein the polypeptide is expressed in a cell  
2 and the cell is contacted with the compound.

1 14. The method of claim 11, the mood disorder is selected from the group  
2 consisting of bipolar disorder I, bipolar disorder II, and major depression disorder.

1 15. The method of claim 11, further comprising administering the  
2 compound to an animal and determining the effect on the animal.

1 16. The method of claim 15, wherein the determining step comprises  
2 testing the animal's mental function.

1 17. A method of identifying a compound for treatment of a mood disorder  
2 in a subject, the method comprising the steps of:

3 (i) contacting the compound to a cell, the cell comprising a polynucleotide that  
4 hybridizes under stringent conditions to a nucleotide sequence of Table 2, 3, or 4; and

5 (ii) selecting a compound that modulates expression of the polynucleotide,  
6 thereby identifying a compound for treatment of a mood disorder.

1 18. The method of claim 17, wherein the expression of the polynucleotide  
2 is enhanced.

1 19. The method of claim 17, wherein the expression of the polynucleotide  
2 is decreased.

1 20. The method of claim 17, further comprising administering the  
2 compound to an animal and determining the effect on the animal.

1                   21.     The method of claim 20, wherein the determining step comprises  
2     testing the animal's mental function.

1                   22.     The method of claim 17, wherein the mood disorder is selected from  
2     the group consisting of bipolar disorder I, bipolar disorder II, and major depression disorder.

1                   23.     A method of treating a mood disorder in a subject, the method  
2     comprising the step of administering to the subject a therapeutically effective amount of a  
3     compound identified using the method of claim 11 or claim 17.

1                   24.     The method of claim 23, wherein the mood disorder is selected from  
2     the group consisting of bipolar disorder I, bipolar disorder II, and major depression disorder.

1                   25.     The method of claim 23, wherein the compound is a small organic  
2     molecule.

1                   26.     A method of treating a mood disorder in a subject, the method  
2     comprising the step of administering to the subject a therapeutically effective amount of a  
3     polypeptide, the polypeptide encoded by a polynucleotide that hybridizes under stringent  
4     conditions to a nucleotide sequence of Table 2, 3, or 4.

1                   27.     The method of claim 26, wherein the mood disorder is selected from  
2     the group consisting of bipolar disorder I, bipolar disorder II, and major depression disorder.

1                   28.     A method of treating a mood disorder in a subject, the method  
2     comprising the step of administering to the subject a therapeutically effective amount of a  
3     nucleic acid, wherein the nucleic acid hybridizes under stringent conditions to a nucleotide  
4     sequence of Table 2, 3, or 4.

1                   29.     The method of claim 28, wherein the mood disorder is selected from  
2     the group consisting of bipolar disorder I, bipolar disorder II, and major depression disorder.